IDD-212B User Manual

(Rev. 2.0)

China Aerospace Telecommunications (shenzhen) LtdSeptember,

2013

Contents

1. Introduction 2

2. Specifications 3

2.1 External Interface 3
2.2 Status Indicator 3
2.3 Technical Parameters 4

3. Device Configuration 5

3.1 PC Tool 5

4. Installation Instruction 6

4.1 OBD Port 6
4.2 Device Installation 6
4.3 Login “UUAID” 7
4.4 Initialization 9

5. Functions 12

5.1 OBD Protocols 12
5.2 Location Inquiry 12
5.3 Regular GPS Data Reporting 12
5.4 Regular G-Sensor Data Reporting 12
5.5 Regular Diagnostic Data Reporting 12
5.6 DTCs Reporting 12
5.7 Diagnostic Functions 12
5.8 Data storage/Supplementary Report in Dead zones 13
5.9 Trip Mileage 13
5.10 Trip Fuel Consumption 13
5.11 Driving behavior monitoring 13
5.12 Alarms and Events Reporting 13
5.13 Remote Configuration 13
5.14 PC Tool Configuration 14

6. Disclaimer 15

7. Warranty 16

8. Statement 17

1. Introduction

IDD-212B is an intelligent on-board diagnostic box based on OBD II/EOBD standard with Bluetooth module, it could read various kinds of data including diagnostic info, mileage, fuel consumption and driving behavior, and real time display on Android/iOS/WinCE PND/CPND/Smart phone via Bluetooth.

Packing List

Parts name	Quantity	Note
IDD-212B OBD Dongle	1	●
USB Configuration Cable	1	○
User Manual	1	●
G-Mouse (HT-166U)	1	○
OBD extension cable	1	○

Note: ● Standard configuration ○ Optional configuration

(Optional accessories will not be included if there is no indication in the order)

2. Specifications

2.1 External Interface

Product appearance as follows：

Standard OBD Connector

It is used to connect to the 16 pin on-board Diagnostic Link Connector (DLC).

The vehicle OBD system is able to communicate with an external device which has the same protocol via this connector.

G-Mouse /Configuration Interface

This is a multifunction interface which is used for parameters configuration or connecting the G-Mouse

2.2 Status Indicator

Indicator	Color	Status
Power LED	Red	Solid on - Power on
Bluetooth	Orange	Slow blinking (on:0.3s, off:2.7s) – Bluetooth connected successfully
OBD LED	Green	Blinking – Trying to communicate with on-board system Solid on – Successful OBD communication

		Solid off – No OBD communication
G-Mouse LED	Green	Blinking - GPS signal is good Solid on - Searching for GPS signal Solid off – GPS off

2.3 Technical Parameters

Mechanical	Size	46mm (L) x 43mm (W) x 26mm (H)
	Weight	35g
Interface		OBD interface RS-232 interface
Data transmission		Bluetooth
Storage		16MB FLASH, store up to 300 hours trip data
OBD protocol		SAE J1850 PWM SAE J1850 VPW ISO 9141-2 ISO 14230-4 ISO 15765-4
Power	Working Voltage	9-16VDC
	Working Current	Average: <50mA@13.8VDC Sleep mode: <20mA@12VDC
Bluetooth		Specification: V3.0/4.0+EDR，Class II Frequency: 2.4-2.48GHz Modulation: GFSK、Π/4-DQPSK、8DPSK Range: 10m (Max. no shield) Sensitivity: -90dBm@GFSK -90dBm@Π/4DQPSK -83dBm@8DPSK -92dBm@BLE Antenna: built in

3 axis Accelerometer		+/-2g, +/-8g, driving behavior detection
LED Indication		Bluetooth/OBD/Power indication
Buzzer		System status/Alarm indication
Environment	Working Temperature	-30℃ ~ +70℃
	Storage Temperature	-40℃ ~ +85℃
	Humidity	5%～95%（no frog）

3. Device Configuration

3.1 PC Tool

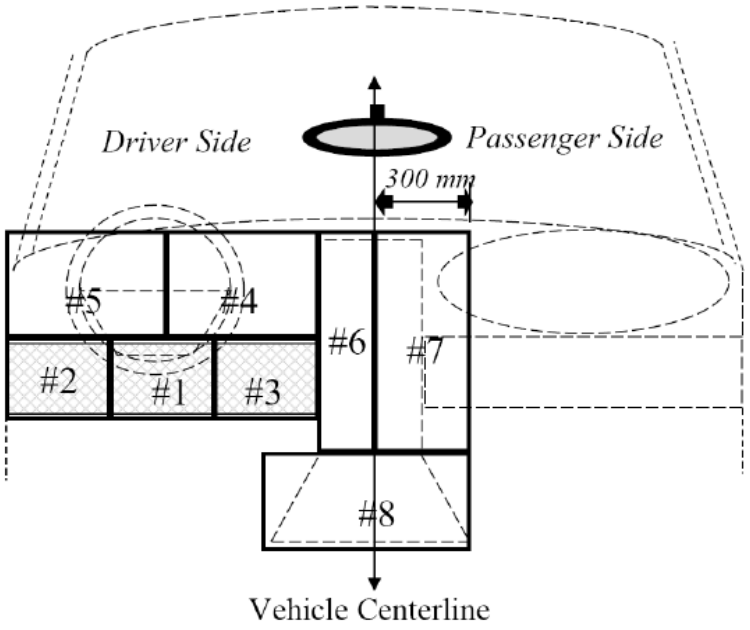
Download USB driver and PC Tool at http://www.castelecom.com/support. Install the USB driver and PC Tool on your PC.

Connect device to PC through USB configuration cable, open the OBD PC Tool, configure the parameters refer to the PC Tool User manual.

4. Installation Instruction

4.1 OBD Port

In general, the OBD port is located in the driver or passenger cabin, from the edge of dashboard on driver side to the border of 300mm. It is easy to touch by sitting in the driver's seat; the preferred location is within the area from steering post to the vehicle centerline.

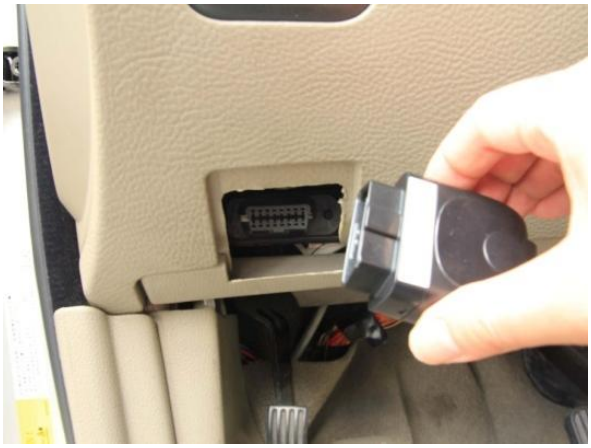


4.2 Device Installation

Before installing the device, please make sure device has been configured with necessary parameters including network parameters and other parameters.

Park the car and make sure engine is off, connect the G-Mouse to the device. Fix the G-Mouse above the dashboard horizontally; make sure no mental shielding above them.

Plug the device into OBD port



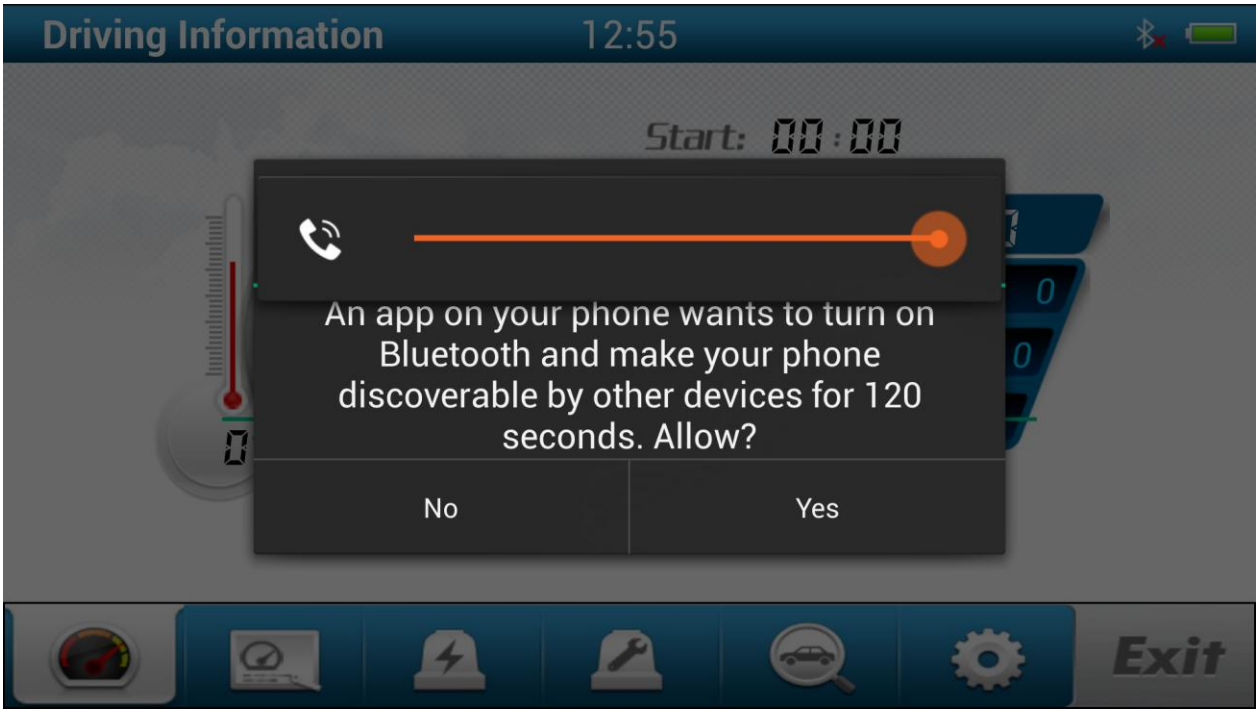
Start engine, with successful OBD communication the OBD light changes its status to solid on and comes 2 beeps. Then device begins to connect UUAID, with successful network registration the Bluetooth light change its status to slow blinking, and with successful login there comes 3 beeps. GPS light blinking indicates that the device has got its location.

If OBD light keeps blinking and comes 6 beeps it means that device is not compatible with the vehicle.

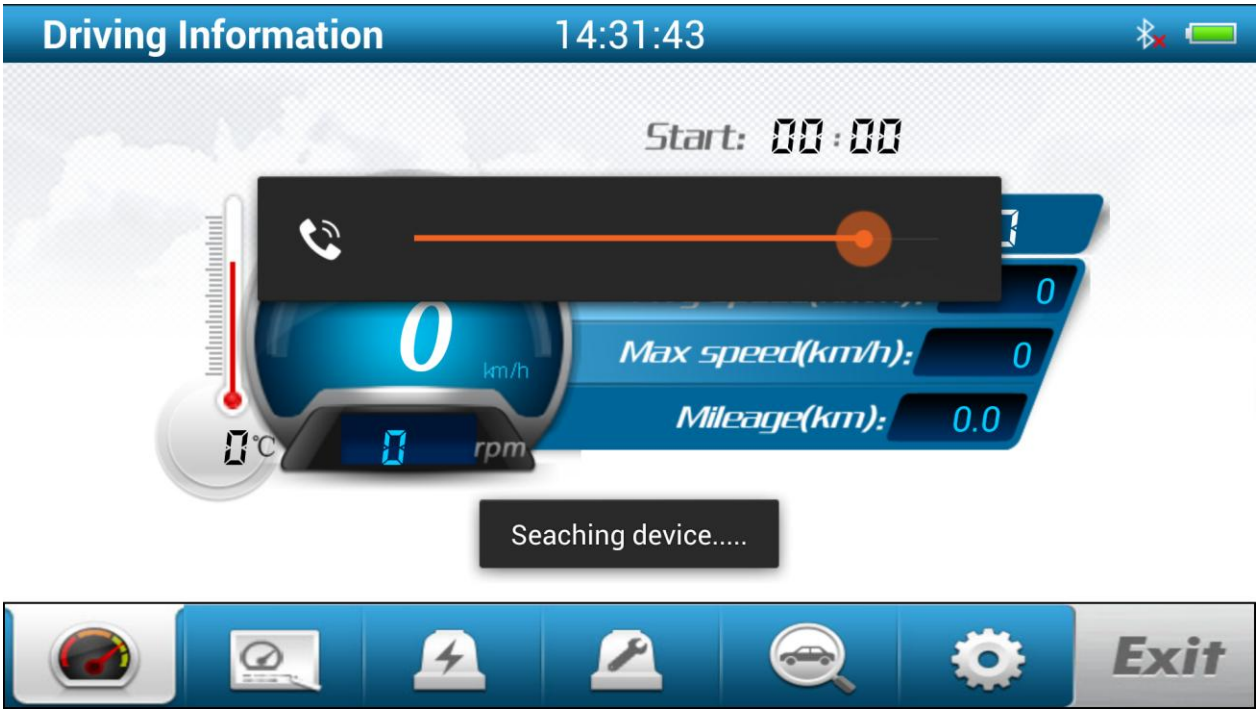
4.3 Login “UUAID”

It wills pop-up a window like picture 1 when you login into UUAID if Bluetooth is not enabling. Click on “YES”, the device will enable Bluetooth function and start to search Bluetooth device automatically, refer to picture 2. It will connect to the device automatically when

Bluetooth device is searched successfully, can be normal used after connected successfully, refer to picture 3. It will re-search Bluetooth device if can't find OBD device, refer to picture 4.

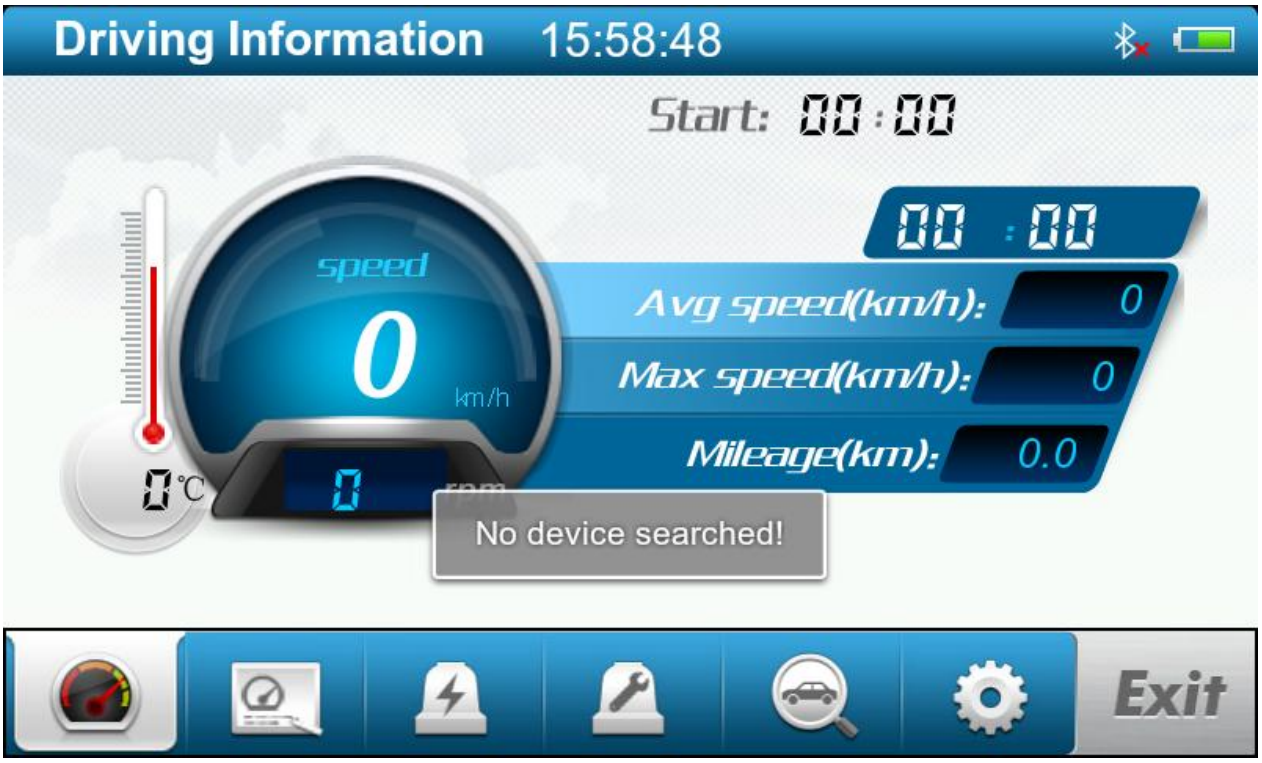


(Picture 1)



(Picture 2)

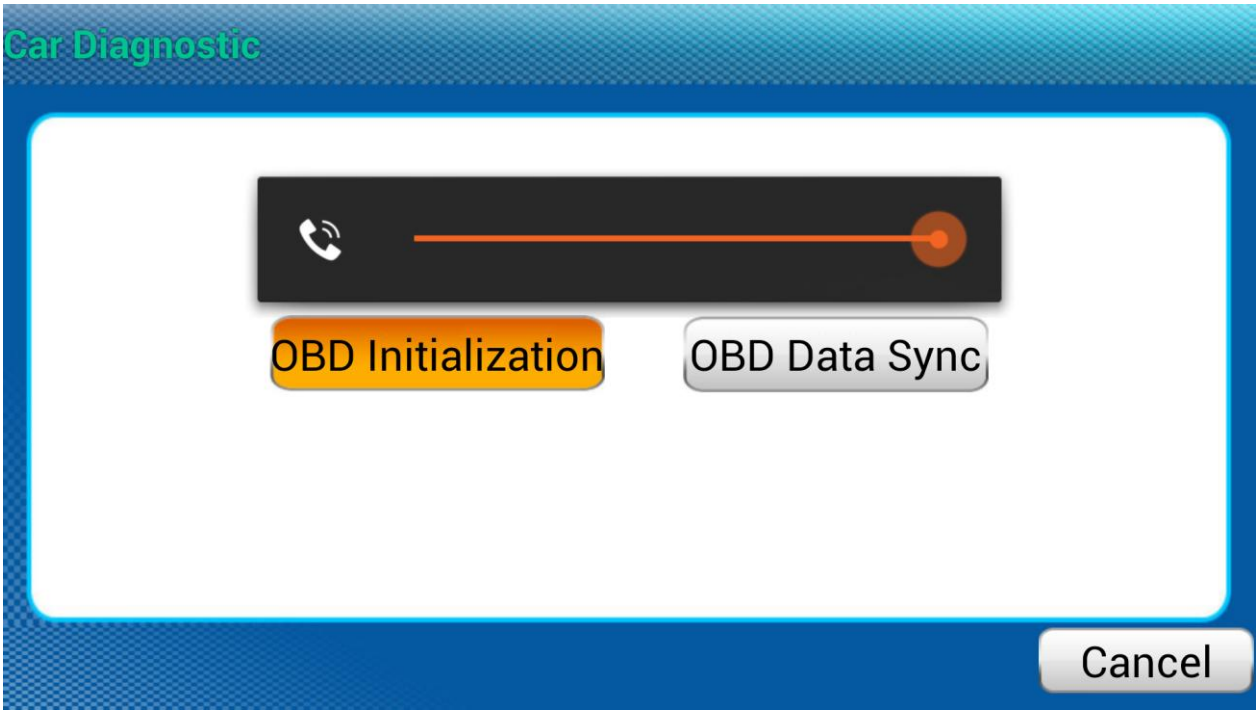
(Picture 3)



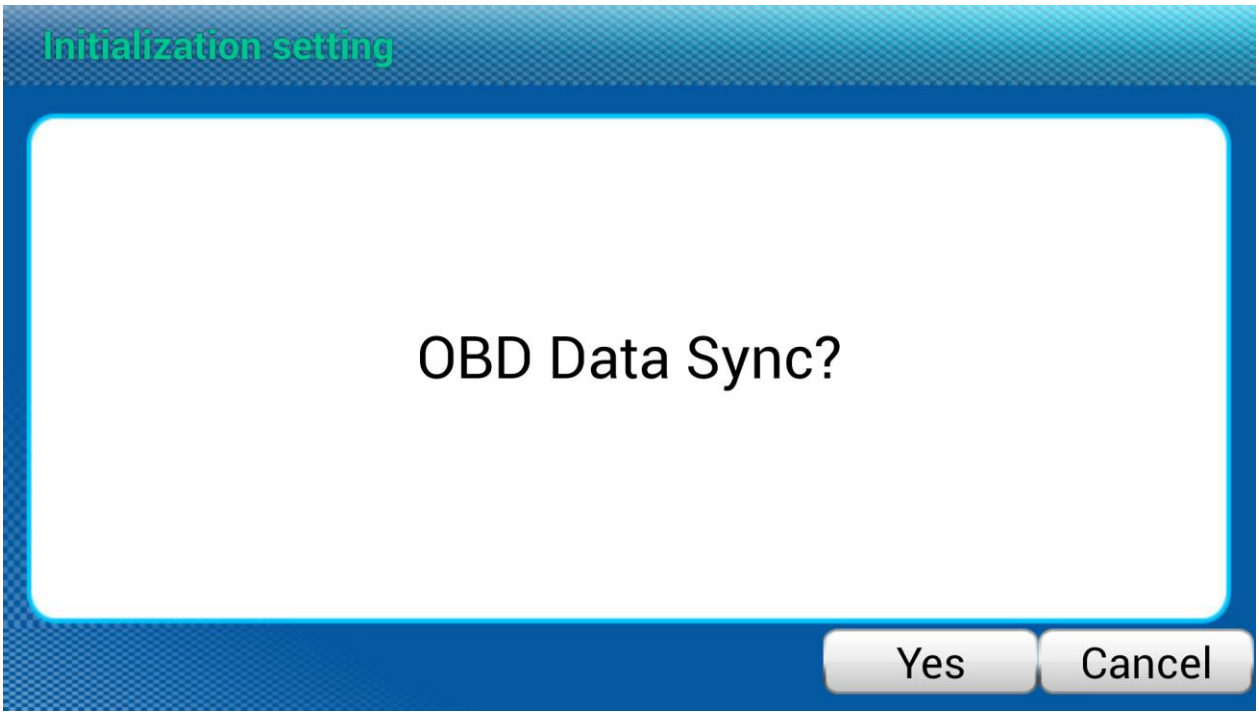
(Picture 4)

4.4 Initialization

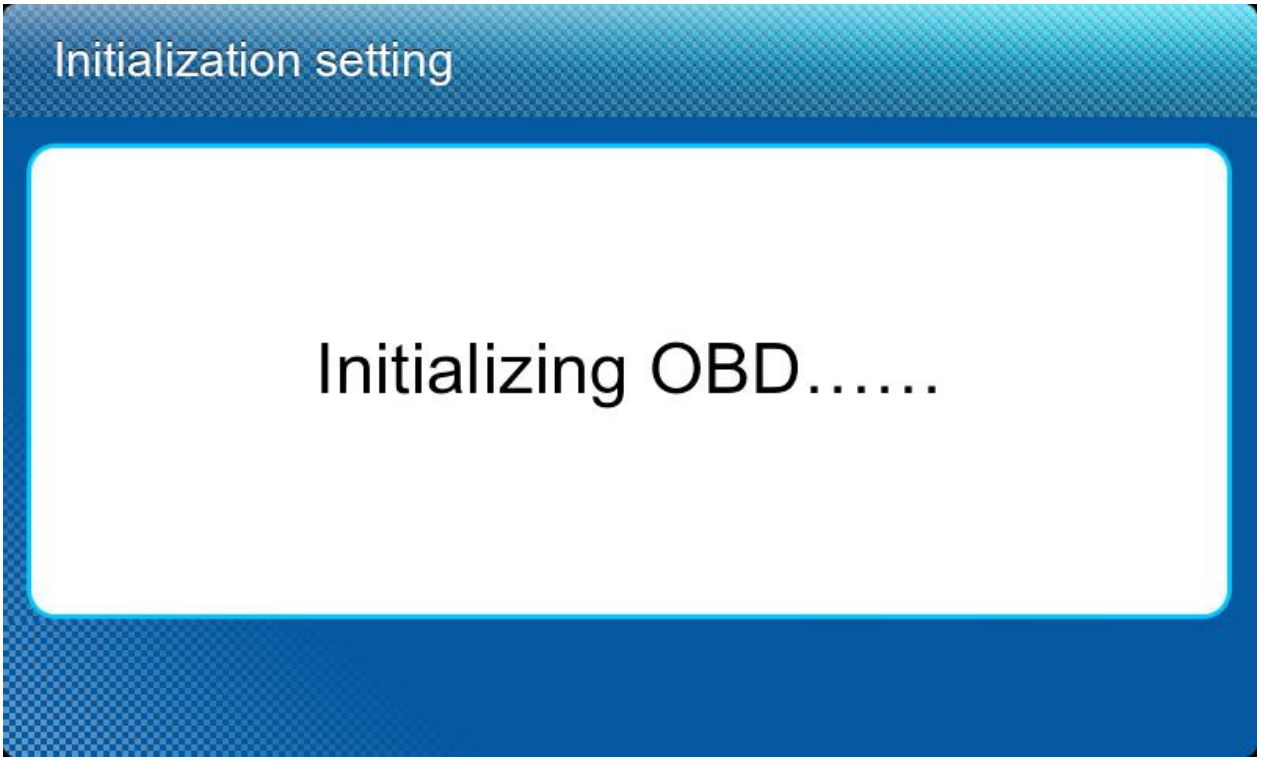
OBD will be initialized when it connects to UUAID the first time, select OBD initialization to clear OBD data and select OBD data synchronization to get OBD data from the earliest record, and then it will go into vehicle parameters setting (set vehicle brand, engine capacity and fuel type).



(Picture 5)



(Picture 6)



(Picture 7)

We advise you to drive the car for at least 10 minutes with the first installation.

5. Functions

5.1 OBD Protocols

The device supports all the OBD II standards below:

- J1850-PWM
- J1850-VPW
- ISO 9141-2
- ISO 14230-4 (KWP2000)
- ISO15765-4(CAN)

5.2 Location Inquiry

Upon receiving location inquiry command from server or via SMS, device reports GPS data immediately.

5.3 Regular GPS Data Reporting

Device reports GPS data according to configured time interval.

5.4 Regular G-Sensor Data Reporting

Device reports G-Sensor data according to configured time interval.

5.5 Regular Diagnostic Data Reporting

Device is able to read variety of vehicle diagnostic data, including vehicle speed, engine RPM, engine coolant temperature, mass flow air, etc, and reports up to 10 types of diagnostic data according to configured time interval.

5.6 DTCs Reporting

Device is able to read vehicle pending and stored DTCs, and freeze frame data. The backend server analyzes and displays the DTCs for users on time to avoid high repairing cost.

5.7 Diagnostic Functions

The device is able to read vehicle pending DTCs and stored DTCs, freeze frame data and a variety of diagnostic data. The backend server analyzes and displays the DTCs for users on time to avoid high repairing cost.

It is also able to clear vehicle DTCs and MIL according to customer's requirements.

5.8 Data storage/Supplementary Report in Dead zones

When there is no Bluetooth signal or Bluetooth signal is poor, GPS and OBD information are stored, and reported after signal recovery.

5.9 Trip Mileage

At the end of the trip, device will report the driving mileage to the server.

5.10 Trip Fuel Consumption

At the end of the trip, device will report the fuel consumption to server.

5.11 Driving behavior monitoring

Real-time monitor bad driving behavior, including Speeding, High RPM, Hard Acceleration, Hard Brake, Excessive Engine Idle Time

5.12 Alarms and Events Reporting

- High ECT
- Speeding
- High RPM
- Hard acceleration
- Hard brake
- Low power
- Idle engine
- Towing
- Plug indication
- Excessive exhaust emission

5.13 Remote Configuration

Users can configure device via UUAID

5.14 PC Tool Configuration

Users can configure device or update firmware through PC Tool.

6. Disclaimer

This user manual only applies to IDD-212B device.

This product only applies to the vehicles with OBD II/EOBD equipped.

This product strictly follows the standard of ISO15031, it shall not cause any harm or affects on vehicles, if there is an exception, please remove the device immediately.

G-Mouse receives has GPS located function. The poisoning function may be affected in electromagnetic shielding area or bunker place.

The device has a built-in wireless communication module. It should be used as far as possible away from fuel depots, chemical plants and other areas could cause an explosion. Most sensitive to external RF sites (such as gas stations, hospitals and school, etc.) may be equipped with radio frequency jamming equipment; some functions may be affected in the interference area.

To make sure the products works well, please use the original accessories.

This manual is based on the “as-is” situation. CASTEL will not guarantee the accuracy, reliability and content of the handbook. Also Castel reserves the right to amend or withdrawn this manual without any prior notification.

7. Warranty

If product got quality problem within the warranty period, please bring the product together with a valid warranty card and purchase invoice to the dealer for checking. Please do not disassemble this product, this may result in damage, CASTEL will not be responsible for those problem.

1 year of warranty since purchase time and life-long maintenance. For Failure or damage due to incorrect operation or not following the instruction, CASTEL will provide paid maintenance within warranty period.

User name: _____

Contact number: _____

Address: _____

Post code: _____

Purchasing date: _____

Serial number: _____

Remark: _____

Please keep this card carefully in order to better serve you.

Distributor (Company Chop)

Maintenance Records

Product Model:

Date	Faults and maintenance of records		Maintenance (Signature)	User (Signature)
	Fault Description	Maintenance		

Note: This form must be carefully completed.

8. Statement

Without written permission from CASTEL, it is prohibited reproduce, transmit, distribute or save part or all of the contents of this document in any form.

Castel reserves the rights to modify or improve these products without any prior notification.

CASTEL reserves the rights to change or cancel the content of this document without any prior notification.

All rights reserved by Shenzhen CASTEL Wireless Telecommunications Co., Ltd

Address: 5/F, 5th Building, Software Park, 2nd Keji,C.,3rd, Road, Hi Tech Park, Shenzhen, China

Postcode: 518057

Tel: (86)755-86156349

Fax: (86)755-86169366

http://www.castelecom.com